

Listing of Claims:

1. - 7. (Cancelled)

8. (Currently Amended) A method for managing radio resources in a universal mobile telecommunication system (UMTS) mobile communications network comprising a core network and a radio access network for supporting a plurality of service requests sent by user equipment to the core network, each service being specified by parameters of the core network describing a quality of service required for a requested service, said quality of service parameters of the core network including at least an Allocation/Retention Priority quality of service parameter and a quality of service parameter representative of a traffic class associated to the requested service, said method comprising:

mapping, by a service node of the core network, said quality of service parameters of the core network with quality of service parameters of the radio access network, said quality of service parameters of the radio access network including the Allocation/Retention Priority quality of service parameter having a priority level sub-parameter, and said mapping determining a value of said priority level sub-parameter based on a value of the Allocation/Retention Priority quality of service parameter of the core network and a value of said quality of service parameter representative of the traffic class associated to the requested service; and

sending, by the service node of the network core to the radio access network, via the core network a radio access bearer service request comprising said quality of service parameters of the radio access network; and

defining wherein, a priority level is defined for the requested service in the radio access network by the value of the by a priority level sub-parameter of one of the quality of service parameters of the radio access network, said mapping determining a value for said sub-parameter based on an Allocation/Retention Priority quality of service parameter of the core network and a value of at least one parameter of said quality of service parameters of the radio access network, associated with a type of service[.]]

9. (Previously Presented) The method of claim 8, wherein said at least one quality of service parameter of the radio access network associated with the type of service includes the a “Traffic Class” parameter.

10. (Previously Presented) The method of claim 9, wherein said at least one quality of service parameter of the radio access network associated with the type of service further includes a Traffic Handling Priority parameter to prioritize interactive-type services in relation to each other.

11. (Previously Presented) The method of claim 8, further comprising:

pre-empting resources at the access network level; when at least one new radio access bearer request is received by the radio access network, and when one of no additional resources are available and if radio resources required to satisfy the quality of service required by the requested service are insufficient.

12. (Previously Presented) The method of claim 8, further comprising:

pre-empting resources at a radio access network level when at least one request for additional radio resources is received to respond to a change in traffic on said UMTS mobile communications network, and when one of no additional radio resources are available and if radio resources required to satisfy the quality of service required by the requested service are insufficient.

13. (Previously Presented) The method of claim 8, wherein, when a plurality of radio access bearer services already active within the network are a subject, respectively, of a request for additional radio resources and when radio resources required to satisfy requests for additional radio resources are available, said method further comprises:

prioritizing allocation of radio resources to determine, on a priority basis, which of the plurality of radio bearer services will be allocated the additional radio resources based on a priority level associated with each of the plurality of radio access bearer services.

14. (Previously Presented) The method of claim 13, wherein, when a plurality of radio access bearer services already active within the UMTS mobile communication network do not utilize allocated radio resources in an optimal manner, said step of prioritizing further comprises reducing radio resources allocated to the plurality of radio access bearer services already active within the UMTS mobile communication network that do not utilize the allocated radio resources in an optimal manner, in an order defined by the priority level associated with each of the plurality of radio access bearer services.

15. (Currently Amended) A core network service node of a universal mobile telecommunication system (UMTS) mobile communications network comprising a core network and a radio access network, the core network service node being configured to receive a plurality of service requests sent by user equipment to the core network, each service being specified by parameters of the core network describing a quality of service required for a requested service, said quality of service parameters of the core network including at least an Allocation/Retention Priority quality of service parameter and a quality of service parameter representative of a traffic class associated to the requested service, said service node comprising:

means for mapping, by a service node of the core network, said quality of service parameters of the core network with quality of service parameters of the radio access network, said quality of service parameters of the radio access network including the Allocation/Retention Priority quality of service parameter having a priority level sub-parameter, and said mapping determining a value of said priority level sub-parameter based on a value of the Allocation/Retention Priority quality of service parameter of the core network and a value of said quality of service parameter representative of the traffic class associated to the requested service; and

means for sending, by the service node of the network core, to the radio access network a radio access bearer service request comprising said quality of service parameters of the radio access network; and

means for defining wherein, a priority level is defined for the requested service in the radio access network by the value of the by a priority level sub-parameter of one of the quality of service parameters of the radio access network,

~~said mapping means determine a value for said priority level sub-parameter based on an Allocation/Retention Priority quality of service parameter of the core network and a value of at least one parameter of said quality of service parameters of the radio access network, associated with a type of service[.]]~~

16. (Currently Amended) A radio access network controller (RNC) of a universal mobile telecommunication system (UMTS) mobile communications network comprising a core network and a radio access network, the RNC being configured to receive a plurality of radio access bearer requests sent by the core network in response to a plurality of service requests by users, quality of service parameters of the core network including at least an Allocation/Retention Priority quality of service parameter and a quality of service parameter representative of a traffic class associated to the requested radio access bearer, and quality of service parameters of the radio access network including the Allocation/Retention Priority quality of service parameter having a priority level sub-parameter, and a value of said priority level sub-parameter being mapped and based on a value of the Allocation/Retention Priority quality of service parameter of the core network and a value of said quality of service parameter representative of the traffic class associated to the requested service, said RNC controller comprising:

means for pre-empting radio bearer service resources based on a priority level associated with each radio access bearer service;

means for defining wherein said a priority level of the each radio access bearer service is defined by [[a]] the value of [[a]] the priority level sub-parameter of one of the quality of service parameters of the radio access network, based on a value of an of the Allocation/Retention Priority quality of service parameter of the

~~core network and a value of at least one parameter of the quality of service
parameters of the radio access network, associated with a type of service[.]~~

17. (Previously Presented) The access network controller (RNC) of claim 16, wherein the means for pre-empting radio bearer service resources are implemented when at least one new radio access bearer service request is received, and when one of no additional radio resources are available and if radio resources required to satisfy the quality of service required by a requested service of the plurality of service requests are insufficient.

18. (Previously Presented) The radio access network controller (RNC) as claimed in claim 16, wherein the means for pre-empting resources are implemented when at least one request for additional resources is received to respond to a change in traffic on said UMTS mobile communications network, and when one of no additional radio resources are available and if radio resources required to satisfy the quality of service required by a requested service of the plurality of service requests are insufficient.

19. (Previously Presented) The radio access network controller (RNC) as claimed in claim 16, further comprising, when a plurality of radio access bearer services already active within the network are a subject, respectively, of a request for additional radio resources and when the resources required to satisfy said requests for additional radio resources are available, prioritization means for allocation of resources, configured to determine on a priority basis, which of the each radio bearer service will be allocated the additional radio resources based on a priority level associated with each of the plurality of radio bearer services.

20. (Previously Presented) The radio access network controller (RNC) as claimed in claim 16, further comprising, when a plurality of radio access bearer services already active within the network do not utilize allocated resources in an optimal manner, means for reducing resources allocated to each of the plurality of radio bearer services in an order defined by a priority level associated with each of said plurality of radio bearer services.

21. (New) A method for managing radio resources in a universal mobile telecommunication system (UMTS) mobile communications network comprising a core network and a radio access network for supporting a plurality of service requests sent by user equipment to the core network, each service being specified by parameters of the core network describing a quality of service required for a requested service, said method comprising:

mapping said quality of service parameters of the core network with quality of service parameters of the radio access network; and sending to the radio access network via the core network a radio access bearer service request comprising said quality of service parameters of the radio access network;

wherein, a priority level is defined for the requested service by a priority level sub-parameter of one of the quality of service parameters of the radio access network, said mapping determining a value for said sub-parameter based on an Allocation/Retention Priority quality of service parameter of the core network and a value of at least one parameter of said quality of service parameters of the radio access network associated with a type of service;

wherein, when a plurality of radio access bearer services already active within the network are a subject, respectively, of a request for additional radio resources and when radio resources required to satisfy requests for additional radio resources are available, said method further comprises:

prioritizing allocation of radio resources to determine, on a priority basis, which of the plurality of radio bearer services will be allocated the additional radio resources based on a priority level associated with each of the plurality of radio access bearer services;

wherein, when a plurality of radio access bearer services already active within the UMTS mobile communication network do not utilize allocated radio resources in an optimal manner, said step of prioritizing further comprises reducing radio resources allocated to the plurality of radio access bearer services already active within the UMTS mobile communication network that do not utilize the allocated radio resources in an optimal manner, in an order defined by the priority level associated with each of the plurality of radio access bearer services.